UNITED STATES OF AMERICA

DEPARTMENT OF DEFENSE

ARMED FORCES EPIDEMIOLOGICAL BOARD

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MEETING

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FRIDAY,

DECEMBER 12, 1997

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The meeting was held in Room 3092, Building 40, Walter Reed Army Institute of Research, Washington, D.C. at 0800 a.m., GERALD F. FLETCHER, M.D., President, presiding.

PRESENT:

GERALD F. FLETCHER, M.D., President
COL VICKY L. FOGELMAN, USAF, BSC,
AFEB Executive Secretary
DR. JIM ALLEN, Member
DR. BAGBY, Member
PROFESSOR SUSAN BAKER, Member
DR. JAMES CHIN, Member
COL FINNEGAN, Member
DR. L. JULIAN HAYWOOD, Member
DR. RICHARD JACKSON, Member
CDR WAYNE McBRIDE, Member
COL FRANCIS L. O'DONNELL, Member
DR. DENNIS M. PERROTTA, Member
DR. POLAND, Member
DR. ARTHUR L. REINGOLD, Member
DR. ROSEMARY SOKAS, Member
DR. CLADD STEVENS, Member
LCDR TEDESCO, Member
CAPT DAVE TRUMP, Member
DR. RONALD J. WALDMAN, Member
DR. NEIL WEINSTEIN, Member

PRESENT (Continued):

CAPT CRAIG HYAMS, Speaker
DR. FRAN MURPHY, Speaker

ALSO PRESENT:

COL ENGLER
COL JOHN GARDNER
CAPT GREG GRAY
DR. HADFIELD
LCDR MEG RYAN
DR. MORROW

I-N-D-E-X

P-R-O-C-E-E-D-I-N-G-S

(0803 a.m.)

MODERATOR FLETCHER: I thank everyone for being on time. I think just a couple of things. I'd like to thank and acknowledge again, as usual, Ms. Jean Ward and, of course, Dr. Colonel Fogelman, who has done a wonderful job putting this meeting together.

There are a lot of little things that need to be done. I think every time we have the meetings, they are very precisely done. And, Jean, you do a lot of work and don't get in the limelight too much. We thank you very much.

(Laughter.)

MODERATOR FLETCHER: She and I talk on the phone a lot and sort of dissertate back and forth. I usually yield to her when she says, "We should do this." I say, "Whatever you say. I work for the military."

We are going to try to begin on time. We have one presentation here. We will have adjournment thereafter for the subcommittees. Environmental Control and Health Maintenance will meet together for a session and Infectious Disease separately.

We will have after that an executive

session, which is very important. As you remember, we need to select a president-elect, who will take immediate office, so to speak and begin their role in the next meeting, probably the Summer meeting in '98. So if there are no other things, Vicky, do you have any comments?

EXECUTIVE SECRETARY FOGELMAN: The only thing I have is that we'll be having the Executive Committee. We'll go right into the Executive Committee meeting at 11:30 and won't take a break for lunch. So for any of the Board members or consultants who want to have a boxed lunch, you need to order that before you go into the subcommittee sessions.

MODERATOR FLETCHER: And we do plan to be out by 1:00 p.m., 1300. Thank you.

MODERATOR FLETCHER: Okay. This morning I'm happy to present two speakers: first of all, Captain Craig Hyams, who is the head of the Epidemiology Division at the Naval Medical Research Institute, and Dr. Fran Murphy, who is the Director of the Environmental Agent Service in the Office of Public Health and Environmental Hazards at the VA. They will be talking about a new proposal for a new recruit health assessment program.

Dr. Hyams?

CAPT HYAMS: Thank you, Colonel Fogelman.

RECRUIT HEALTH ASSESSMENT PROGRAM

CAPT HYAMS: Today, this morning I'm going to talk about a proposal for a recruit health assessment program and explain something about this proposal. The goal of the proposal is to establish a program for the routine collection and computerization of baseline health data from all recruits, including active duty, reserve, and National Guard, both enlisted and officers.

This computerized baseline database would contain information, demographic information, medical and psychological data, prior occupational exposures before entering the military, and various risk factors for adverse health outcomes.

The purpose of this proposed program is to provide -- the first purpose is to provide DoD and VA physicians with accessible medical and risk factor data to aid in clinical diagnosis among active-duty troops and veterans. It's really to aid in diagnosis.

Obviously clinicians are always interested in seeing a change in condition and

knowing what signs and symptoms have been chronic and which have changed. And oftentimes this sort of baseline data is not available. And with a computerized database, much of this data could be available to our DoD and VA physicians.

The second purpose of this proposal is to develop improved preventive medicine strategies for military populations using longitudinal health data.

There's been a lot of discussion within DoD and also here in AFEB about longitudinal databases. And the way to set up a longitudinal database is, we propose, to begin with military experience. You need baseline data in order to establish this sort of longitudinal database.

A third purpose of this program is to establish a baseline database to be used in future research studies to evaluate health problems among active-duty troops and veterans. Obviously here the example that comes to mind is the Gulf War illnesses.

We've had a great deal of trouble here in the United States and also in Britain and Canada explaining the symptomatology amongst some of our Gulf War veterans. And one of the big

missing pieces of this whole puzzle has been in many cases the lack of pre-deployment data, health data.

If we had a system in place where we have a large amount of accessible data, it would have helped us greatly in understanding the clinical findings of the VA Persian Gulf health registry and from the DoD CCP. And obviously this sort of data would have been invaluable in understanding the data that's being generated from the epidemiologic studies that are being conducted right now amongst Gulf War veterans.

What are the proposed methods for this program? What we are proposing is that an electronically scannable questionnaire be administered to all recruits within the first seven days of basic training.

This questionnaire should take less than two hours to complete, and that's the entire process. That's from the time that the recruits are explained the reason for the questionnaire until the time they finish answering all of the questions. That's in order to minimize the disruption in the recruit centers.

The survey instrument should be compatible with the SF-93 and 88. This is the

standard form, government form, that's used in prospective recruits to collect medical data and physical examination data. It's also used during a Service member's career at periodic examination times. And also -- and this is something I've just learned about recently -- it's used in other government agencies.

Any kind of baseline health database should at least capture the sort of data that we have been acquiring over the last several decades. And so it should be compatible with the SF-93 and 88.

It should also be compatible with the HEAR and with the discharge examination database that's being developed between VA and DoD. This is a database with medical information when Service members leave active duty and enter the VA system.

And, as you probably all know, the HEAR system is a way to acquire periodic health information that's been instituted within DoD. So by combining a baseline health database with the HEAR system with the data that is generated when active-duty personnel enter the VA system and with the various VA databases, we could have a longitudinal health database on our military

population from the time they enter the military until the time that they are in the VA system.

The questionnaire used for this program should be added to the Service member's record. Also, the original questionnaire and computerized database should be maintained at a centralized location with sufficient staff to ensure quality control.

Okay. Let me talk about the historical precedence. Self-administered questionnaires have been used to screen recruits at least since World War I. There's actually a very large literature about this.

There have been various systems that have been in place for 80 years, paper and pencil, mainly self-administered questionnaires that have been used amongst recruits.

For the most part; in fact, in every case that I've been able to identify so far, these questionnaires have been used to screen recruits for psychological problems that would result in early separation from recruit training, early separation from the military. And they have not been conceptualized as a baseline database to be used for clinical purposes or for preventive medicine purposes.

Currently the current system for screening recruits for psychological problems is called N-AFMET, the Navy-Air Force Medical Evaluation Test, which has been renamed BEST now. And it's a three-phase program for screening Navy, the Air Force, and Marine Corps recruits. It's not used in the Army system.

In the first phase of N-AFMET or BEST, a history opinion inventory questionnaire is administered to recruits, the HOI. It's about 70 questions, and it can be completed very rapidly. These are true/false questions. They're fairly easy to answer. It's a scannable questionnaire. And, again, it's used to identify recruits with psychological problems. It's a screening tool.

Also -- and this is an outstanding program that I want to talk about and really sort of demonstrate the feasibility of what we're proposing. There are the ship sailors health inventory project at Naval Hospital at Great Lakes.

And all enlisted Navy recruits, they all go through the Great Lakes center. When they come in for the first day or two of training, they complete an extensive questionnaire, health questionnaire, that is in a scannable format.

And it's read into a computer system.

This questionnaire collects medical data, risk factor data, other types of data. It's quite extensive. It duplicates the SF-93 and 88 and also collects some additional information and, again, demonstrates the feasibility of using scannable health questionnaires amongst recruits.

We're proposing something similar to this that would be used DoD-wide, not just within the Navy, but that would also be somewhat more extensive than the ship sailors health inventory. It has more questions that we feel are needed to follow troops during their active-duty career and when they enter the VA system.

Let me mention something about the current issues that need to be dealt with over the next year. The obvious one is questionnaire and database development.

We've been actually working on the questionnaire. We have a working group within DoD, VA, and HHS. And we have been working on the questionnaire for a couple of months and have made substantial progress.

Obviously after the questionnaire is developed, there is going to have to be extensive

pilot testing for length, acceptability, and validity.

There's one other major issue that needs to be dealt with. What we're proposing is a baseline database that can be used for clinical preventive medicine purposes, as I've said, during a military person's career and long after, when they enter the VA system. We're not proposing a screening tool here. That's a different goal.

However, the sort of questions that you would want to ask in any kind of baseline database, many of them are similar to the sort of questions you'd also want to ask for screening. And so there's an overlap between these two different goals.

So it's possible to use any kind of initial questionnaire for acquiring baseline data. It's also possible to use it for screening purposes. And there need to be some decisions made about whether or not this survey instrument would also be used for that purpose.

In the ship sailors health inventory, they use their computerized survey instrument to speed medical in-processing and entry into the CHCS system. It's actually saved them time. And

it's also used for screening.

It's used for intervention purposes, to identify recruits with smoking problems, for smoking intervention. And it's also used to identify recruits who have medical, psychological problems that may result in early separation.

I'm going to say something about the future issues down the line with this proposal if we go forward with it. Obviously one of them is linkage with other DoD and VA databases. Health Affairs is a large program now working on linking all of these databases. There's a lot of them.

There's a lot of data collected amongst prospective recruits at the MEPS centers. There's data collected in the recruit centers. And there's lots of data collected through your military career and also when you enter the VA system. And for us to properly follow the health of our veterans and take care of their health, it needs to be some linkage to these databases.

There's also the issue of involvement of our NATO countries. We discussed this extensively with Colonel Finnegan. The British and the Canadians have had as much trouble as we have had to explain some of the illnesses amongst their Gulf War veterans.

They're actively considering now whether they want to institute a baseline computerized health database themselves in order to try to answer some of these questions post-deployment. If they do that, that would be very valuable.

We usually deploy in these major deployments with the British, Canadians. We're in Bosnia together with them now. Certainly we are in the Gulf together.

And although we deploy together, our experiences are somewhat different. These differences really help us sort out some of the post-deployment health issues. If they had a similar baseline database, it would obviously help us a lot in understanding the health problems amongst our veterans.

Okay. I have one last overhead about the questions we're going to pose to AFEB, but I'm going to wait on that. Dr. Murphy is going to give the VA perspective on this proposal. And then we'll list the questions for AFEB.

DR. MURPHY: There may be some questions about why VA would like to get involved in this since it's really a recruit health surveillance database. Why would VA want to be

involved at the beginning of the process?

Well, in fact, there are some very good reasons why VA and DoD need to work together on health issues from the time a soldier or airman or sailor need to come into the Service through the real severe career.

First of all, we're deploying reservists more frequently than we were in the past. And they move in and out of the VA and DoD health care systems with increasing frequency. So we need to have a consistent way of monitoring their health and doing health surveillance and actually answering their health care needs and concerns.

In addition, there are other activities that are currently ongoing where VA and DoD have set up systems to work collaboratively. Many of you may already know that VA and DoD top managers meet on a monthly basis through a VA-DoD executive council to work on issues like core pharmacy, a consolidated and consistent computerized health record that would be the same between VA and DoD.

Our discharge exam program is just being kicked off. It was piloted in four sites around the country. And we found that the

discharge examination could either be done in a DoD health care facility or in a VA health care facility and serve both of our purposes so that a military member who was being discharged from the Service could get a discharge examination and health assessment and, if necessary, we could use that for compensation purposes and saving time for both the military member and resources for our federal health care system.

It's important in a time of shrinking personnel and budgets to minimize the duplication and rework that we do in VA and DoD. And so more and more we're trying to work together to partner and try to have our systems consistent and useable for both military and VA purposes.

It served us well in a number of programs. Let me give you one example. There were slightly less than three dozen individuals who were friendly fire victims and have retained depleted uranium shrapnel after their service in Desert Shield and Desert Storm.

Rather than set up two different health surveillance systems to try to figure out what health impact that retained shrapnel had, the health surveillance program is resident at the Baltimore VA. And both active duty and

veterans who are no longer with the military come there for an annual screening.

The database or registry is resident at that facility. And in doing that, we can share the information, have one system that will follow those veterans through their active-duty career and out into their VA health care situations and also have a consolidated database.

We think that this has the same issues related to it. There needs to be a consistent system throughout the military members' careers and the rest of their veteran health care.

We also need to recognize that there are some other issues that are impacting on the military and the VA health care systems. VA is going through a fundamental change in the way we deal with veterans' health care.

In the past, it was a system that was very reactive. There was not much attention to customer or patient satisfaction. We really didn't try to predict what veterans would need or what they wanted in their health care. In fact, it was a pretty unresponsive system.

We're trying to fundamentally change the way we deliver health care to veterans with an increased customer satisfaction focus, focus

on the patients' needs. And in order to do that, we need to have population data.

Right now we have a lot of databases that tell us about the users of the VA health care system, but we have no way to predict who might be coming into our system in the next ten years and what their health needs would be and be able to proactively plan for that and assure that we have the kinds of services that will allow us to provide high-quality, timely, accessible health care to those veterans.

This database, the compiled information, may help us do that in the future. It will also allow us to look at issues of health promotion and disease prevention.

Both the military and VA have a vested interest in having a healthy and fit force. We would like to see the health of veterans' populations improve over time.

One of our challenges is that right now the veterans who use our system tend to be less healthy than the general population. And we'd like to see ways to improve and promote their health over their entire life.

I think that I don't have to talk to this group the potential research and

epidemiologic advantages of having this kind of a database. It would allow us to have baseline information that will help us understand post-war illnesses but also help us understand the whole spectrum of disease in veterans' populations in the future.

And, with that short introduction, we'd like to open up with a couple of questions to the group. And that is: Should this program be established by DoD to obtain baseline health data for military recruits and for use in diagnosis, health promotion and disease prevention programs and potentially for epidemiologic research in the future?

Obviously there are some issues that need to be worked out. And we would welcome the AFEB's input. And would you be willing to evaluate the recruit health surveillance survey instruments and help us pilot it and assess the effectiveness?

CAPT HYAMS: I think we'll reopen it for questions now. And I think we go into subgroups.

MODERATOR FLETCHER: I really think that this is one of the first times I've seen, really, the VA system working with Defense in a

very cohesive type of way. And I think we'll work with you on this. Certainly from my sense and I'm sure many others, this is an excellent approach to this.

Maybe some comments or questions? Dr. Stevens?

DR. STEVENS: I'm sorry for coming in late, but did you say that this would be self-administered?

CAPT HYAMS: Well, there are different ways to do it now. In the ship sailors health inventory, it's a directed sort of questionnaire. There's a corpsman there who goes through the questions with the recruits in a large room and goes through each question.

We could do it that way, which would limit the number of questions we could ask, or we could have someone explain the questionnaire and be available to answer questions but have a largely self-administered questionnaire. We haven't totally decided on that yet.

I think you could have sort of a combination of the two. You could have someone explain each category of questions, make sure everyone gets through those questions, but you don't have to necessarily read out each question

to every recruit. You could make the questionnaires quite simply. They obviously collect a lot of information.

DR. STEVENS: One of the reasons I ask is sort of in a sense a trick or a trap question. I was at a meeting at the Heart, Lung and Blood Institute a couple of weeks ago where we were looking at how we could do better at getting information about risk factors from blood donors or getting them to admit possible risk factors more accurately.

There was a survey scientist that was part of this group that was reviewing these issues. And he looked at the self-administered part of our routine questionnaire for blood donors, which is I think about the equivalent of this part of your questionnaire. And his comment was: Well, in terms of self-administered, if you had a college degree, you may be able to get accurate information from people.

So I think the issue of how this is administered in terms of getting accurate information is really important. One of the things you might consider, although doing this in the context of the numbers of people that come through as recruits, there is another technique,

which is using computers with audio-type. You could do that even with little laptops, but I don't know how you'd do that in the context of military recruit, getting numbers, huge numbers, through.

But I think the part of what I'm saying is the pilot phase of this I think is going to be really critical. And thinking about strategies for how you'll get the most accurate information is really important.

CAPT HYAMS: Let me just say I think there are 300,000 recruits coming through our system every year. So we've discussed the possibility that a computer-administered questionnaire just might not be feasible with that number of people.

That said, you know, people come in the military in lots of different ways. The enlisted personnel go through a limited number of recruit centers. That's the bulk of the military forces. But officers come in in lots of various different types of ways.

Regardless of how the questionnaires are administered in the recruit camps, it's going to have to be largely self-administered. It's going to have to be fairly simple and for anyone

because people come in in different ways and they're going to get this questionnaire in different sorts of surroundings.

We can work out some of those issues I think during pilot testing.

DR. STEVENS: Just to make one more point, too. Some of the questions obviously are a little bit sensitive in the sense of people not wanting to admit it. And some of the computer systems they're now data-accumulating with the computer interface and even audio, somebody reading the questions through an audio system, tend to get more admission of, say, risk factors or things that are potentially sensitive.

CAPT HYAMS: Yes. Let me say something about that, about sensitive questions and the veracity of questions. A lot of sensitive questions are already asked of most recruits in the HOI and the inventory that's used to screen for psychological things and a lot of systems like that. They don't seem to have that much trouble with it, those questions. They're fairly always responsive.

Also the timing of this sort of questionnaire, we've chosen the first recruit training. There's a general feeling out there

that the MEPS centers don't get accurate data because they are too anxious. They're in the military. Their home is civilian clothes. They're being evaluated. They're helped by the recruiters. And you just don't get as accurate responses.

There's also a general feeling that after a week's worth of training, that you start developing a certain amount of military indoctrination. You don't get as honest answers at that time. And the reason that it's pretty much centered on the first two days of training.

There's actually some data on that. The N-AFMET program has done pressing of their survey instrument at MEPS centers the first two days of training. And what they have found is that as they get honest responses, they feel in the first two days of training that, even after one week, they don't get as honest responses. The kids tend to check negative off on everything.

Also, the potential recruits tend to check negative off on everything at the MEPS centers. But those first few days, when they're in this new surrounding, you know, they've entered, they've finally made it to the military,

--

DR. STEVENS: Military training?

CAPT HYAMS: -- they get what they feel are honest responses. And that's the reason for choosing that time frame. There's been a lot of question about that.

MODERATOR FLETCHER: Dr. Chin?

DR. CHIN: Just sort of a follow-up on this point about truthful answers. Looking at some of these questions, "Have you been bed-wetting consistently after the age of 12?" and "When you get angry, I always burst out crying," I can't see a recruit giving an honest answer to that. But I'm sure you've had some experience.

My whole question here, though, is related to most of these questions are sort of "Yes"/"No." And if I go through answering some of these, you might want to put in a "Yes"/"No"/either "Unsure." And you might get some little more honest answers that way.

CAPT HYAMS: Let me say those are not our questionnaires. Those are the ones that are being used now.

DR. CHIN: Now.

CAPT HYAMS: Just as an example --

DR. CHIN: Have they been evaluated?

CAPT HYAMS: Do you feel like in the recruit setting, you get honest answers to questions like that about bed-wetting and crime and --

LCDR RYAN: Not always. The reason those particular ones are in there is because they're separatable issues. The utility of the tool when it was first developed, it's like you said. Enter people in CHCS. But also it's just actual things that would get people separated because chronic enuresis is a separatable condition.

So it depends on somebody's motivation to say, "No." That's sort of an unfortunate question in a way because if they say, "Yes," they go home.

EXECUTIVE SECRETARY FOGELMAN: But they're being honest.

CAPT HYAMS: That's not necessarily a question that we would ask everybody in the surveillance system, enuresis. It's something that we might not be interested in but for screening purposes, they might be.

MODERATOR FLETCHER: I believe Colonel Gardner was next.

COL GARDNER: Colonel Gardner, USUHS.

I'm a great advocate of baseline data. I think that's really important to have good quality baseline data. But worse than no data is unreliable data. And I'm not sure that you can collect reliable data from recruits because there are too many issues.

I mean, if I say this, will they skip me out? If I say such subsequently, will it impact or if I say such, if I don't say it, then when I have problems with it later, will this be an issue? If I do say it now, I have problems with it later, I'll get discharged for having something that existed prior to Service because I admitted it back here on this questionnaire.

I mean, there are so many issues coming in to recruits that influence how you respond to questions like that and what you admit and what you don't admit. I think it's really a difficult problem.

I think perhaps at the end of recruit training or after, they're more secure in their careers. You might collect more accurate data. But selecting it from the beginning makes me real nervous.

CAPT HYAMS: Let me just say that

that's actually I think an argument for separating the baseline data that is from --

COL GARDNER: Do them both.

CAPT HYAMS: You would do that, but in order to reassure the people completing this questionnaire, it wouldn't impact on their separating the recruits in training, that's what I would think for separating them, those two --

COL GARDNER: Say, "Well, look, now you've got the problem. Just" --

CAPT HYAMS: Let me make another point. What we're trying to do here is we're trying to capture the military experience. We're trying to find out: What are the health effects of being in the military, short term and long term?

You have to draw a clear line, I think, between civilian life and military life. And that line is drawn with people entering the military. If you wait a few months or a year or whatever, you're going to miss that whole period of military experience.

And also I think if you look at the data from the N-AFMET group, they feel like they get fairly honest responses in the very beginning of recruit training. But even after one week,

they don't get as honest responses.

DR. WEINSTEIN: I want to make the comment about pilot testing. Frequently pilot testing of questionnaires is limited to looking for the questions that are skipped or incorrect skip patterns or double answers or asking people at the end of administration whether they have any problems or questions. That wouldn't be sufficient in this kind of situation.

You can do things where you have one group that fill out the questionnaire with their names being recorded as they would normally be in another group, fill it out totally anonymously to see if those sorts of questions do get answers permanently, as frequently in the identified situation.

You can also use the questionnaire in the sort of mass written version of numbers, take a subset of those people and in not the sensitive questions, let's say the more medical questions, go through them with the person one on one clarifying the questions to see if you get different results.

So there are a number of ways where you get the sense of the reliability of the data and the ability to get information without making

it a matter of opinion.

DR. MURPHY: When we talked about the pilot testing, we discussed whether we needed to administer the questionnaire in several different forms, whether it was a paper and pencil form versus the telephone versus the computerized. We hadn't really gotten to the point of making decisions on that.

DR. WEINSTEIN: These are in a sense mini experiments to test various ideas about whether people are willing to say various things on the questionnaire. I think that should be seen as there, not just checking the readability of the effort, the understandability of the questionnaire, but all of these other issues people are raising.

MODERATOR FLETCHER: Dr. Sokas?

DR. MURPHY: I'd like to just make one comment as part of this, on John Gardner's statement, before we go on because I don't want this to look like it's going to be a stand-alone database that will never be correlated with anything that happens during the rest of the Service person's career.

Obviously there are serial health screenings that go on during military service and

then in the veterans' health arena. It would be, we would hope, the opportunity to set up some relational databases that would be to track over time the health status of these individuals, both for clinical purposes and, if necessary, for recruit purposes.

I think the issues you raise are real. We have two alternatives. We do nothing and still have all the same questions about the health of the military populations or we try to develop the best machine possible with a view to tease out some of the risk factors that may be important in development of either recognizable disease, diseases of unexplained symptoms, multi symptoms.

MODERATOR FLETCHER: Dr. Sokas?

DR. SOKAS: I think that as remarkable as the collaboration between DoD and the VA and how positive that is is the fact that you guys are asking for AFEB's serious input.

And I think that what we might be able to do, for example, would be to each subcommittee take this and give those kinds of suggestions in a very detailed, thorough-going manner so that, in fact, that gets the AFEB really involved with this because we have been talking over the last

day about missed opportunities for that. And this is a real opportunity for us, A).

B) A second part of that is sometimes within HHS, there are not huge amounts of cross-information. And I was just wondering if one of the groups that's helping you with questionnaire development is NIOSH because they have an incredible amount of expertise available. And if you ask HHS, they might not immediately think NIOSH.

MODERATOR FLETCHER: Commander Ryan?

LCDR RYAN: Yes. We know we get better data than at MEPS, who asks the same Standard Form 93 questions that we ask. We get a lot more positive responses that we can collaborate on more.

The other thing that I think is good is because it's administered by the corpsmen, we actually can not only explain what the question means but explain -- and we do -- sometimes the impact of the question.

So we can tell them it's okay to tell us about their smoking history. Nothing they say is going to kick them out. It's okay to tell us about their history of alcohol use. Nothing they say is going to kick them out in those questions.

And we can even say it's okay to tell us about enuresis because it's better to know now in case there's a problem and some people get waived. It's okay.

So we try to encourage the more honest answers if we do get more. And the behavior questions, like smoking an alcohol, have been invaluable to us. It's been really a great boon, even in boot camp, as to how to help that along.

MODERATOR FLETCHER: Dr. Reingold?

DR. REINGOLD: Yes. Two points. One is that we heard yesterday about some very nice work on databases being developed. And I do think it's really important to think early on how to make sure this can be linked easily to these other database outcomes. I don't know if you're doing that, but I think that's a key point, using the data labor.

I think the other question I would have is depending on what these questions are whether it makes sense for particular groups, things like Gulf War, pre-deployment and post-deployment sorts of things, whether a one-time survey whenever it occurs is adequate or whether some of these questions should be repeated periodically.

CAPT HYAMS: Let me just say something about that. I think deployment surveillance is essential, but you just don't always have time to do it. I did surveillance during Operation Desert Shield five months before a war. We did a lot of surveillance during that time period. We may not have that in the future.

It's important I think -- we discussed this yesterday -- to have some surveillance systems in place to collect data before the Board goes out, before people are rushing around for hazardous deployment.

Most enlisted personnel will be on tour for three or four years. With this baseline database, when they come in the military with a lot of information, it will be useful through most of their active-duty careers. And this is just one way to sort of routinely collect data that obviates all of these problems you face when people go off to hazardous wars.

DR. REINGOLD: I'm not suggesting asking the questions again before people go off on a hazardous tour. I'm suggesting that perhaps some of these questions might be in the future asked every five years or every three years so that, in fact, you track --

MODERATOR FLETCHER: Dr. Trump?

CAPT TRUMP: They mentioned that it's compatible with the HEAR. We heard yesterday about the health risk assessments. That's what that is. It's periodic health enrollment assessment that's going to be done, issued on an annual basis, not linked to deployments. But it will have some of those same questions and hopefully at least comparable questions.

I think the one thing to think about is that most of what they're talking about are questions that are being asked already. They're just being asked. They're being captured on a piece of paper. We can't do anything with them.

And it's not so much whether it's -- I mean, as an epidemiologist, you have to think about whether the answer is valid or not valid, but questions are being asked already. You can at least use what's there if it can be captured in some way that is useful.

And I think the other thing is that a lot of the utility of this is not on looking at individual but in looking at populations that we're responsible for while they're on active duty.

I think the realization is that the

nation now expects us to be responsible for the health or at least accountable for the health of those veterans potentially for the rest of their lives. And it has a variety of impacts, some on the information we collect, some on the VA, some of the issues we talked about yesterday of immunizations.

What may not be cost-effective as far as hepatitis B vaccine for the active military force when you consider it over the life of the veteran may be cost-effective to the government if we start looking at DoD and VA combined and what VA -- the issue right now is hepatitis C virus infection. In fact, that's something that can be addressed when they're at least evaluated at the beginning of the military service.

It will have impact. It may not be felt on DoD's budget or DoD's health care system certainly from VA. And it's an effort to capture data that's out there but we aren't able to use right now.

MODERATOR FLETCHER: Should we move on? Do you have other data to present or are we ready to open it up?

CAPT HYAMS: Yes, sir.

CDR McBRIDE: I think the idea has a

lot of merit. I do have some concerns about a couple of the points that have been raised about timing and content of the instrument.

I do have a question initially. Will this be administered also to officer accessions as well?

CAPT HYAMS: Yes.

CDR McBRIDE: Okay. Secondly, the DoD 88 and 98 are, as I understand it, under revision. My concern would be that there may be unnecessary duplication between some of the questions that are asked on that and the instrument that you're developing. So just be aware of that.

And then, lastly, it would appear to me that this might have more valuable for the VA if something like this is administered as one prepares to exit the military.

Have you considered offering this to them and, as they prepare to leave their active duty and prepare to perhaps avail themselves of the health benefits of the VA?

DR. MURPHY: I think that this has value for prevention, disease prevention, instruments in addition to just simply registration or involvement in the VA or

compensation. I'd like to see serial entries.

There is a lot of work going on that goes beyond this. In addition to the HEAR instrument being used in DoD, we're now I understand talking with DoD about implementing the HEAR within VA also to do the same kind of risk factor assessment.

I think there is a lot of opportunity over time to have an impact, a positive impact, on the health of the veteran population. And we'd like to see that opportunity.

There are a lot of differing needs that are having an impact on this issue, but I think it is an important one right now and very timely. And I hope that it will have an impact.

CAPT HYAMS: Let me say something briefly. The SF-93 was revised last year. The revision hasn't gotten out to many medical centers. I don't think it's under revision right now.

We're not saying totally do away with this SF-93. It can still be administered at the vet centers or wherever, but what we're proposing is a computerized database, not just the paper and pencil questionnaires that we have now that are often lost or misplaced or are not available

on an aggregate to look at large print when it's large number of veterans.

Also, I think we can do a lot better with this SF-93 data. It just doesn't collect as much information as most of us would feel is needed. It's just not adequate.

MODERATOR FLETCHER: Dr. Baker?

PROFESSOR BAKER: Would this replace the ship sailors health inventory?

CAPT HYAMS: Well, I think ship sailors health inventory is the forerunner of this. I think it's an outstanding system. I think it shows that this can be done in a recruit setting. Whether it will replace it or not, we don't know. We would like to see something similar to that instituted DoD-wide, but we think we should ask more questions than the current program we have.

There are other questions that we need to ask that are important to the lifetime of a military member's career and also in the system. It certainly is --

MODERATOR FLETCHER: Dr. Sokas?

DR. SOKAS: Yes. Just a quick little comment. It's not so terrible to have some duplication in the beginning because then you can

use that for your reliability assessment. So I wouldn't worry about that.

MODERATOR FLETCHER: Dr. Gardner?

COL GARDNER: Just I think in large part, my concerns would be addressed simply by readministering the very same questionnaire in the same way at the time of graduation.

MODERATOR FLETCHER: Dr. Stevens?

DR. STEVENS: Just to reinforce this effort, I think this is terrific. The idea is terrific. It's extremely important to do this, a tremendous opportunity. Just I just want to make sure that it's done in the most effective way possible.

MODERATOR FLETCHER: Any more questions, comments? Dr. Haywood?

DR. HAYWOOD: Well, all the caveats about reliability of self-assessment notwithstanding, I think this is a reasonably good initial proposal. Then the answer to the two questions should be yes.

MODERATOR FLETCHER: I really think we ought to have all of our subcommittees look at this, I think, and input. Yes, we would very much like to do some types of things. I think, speaking for everyone, we're very interested.

Any other questions or comments? Dr. Engler?

COL ENGLER: I just wanted to make a comment that you might want to talk about 15 years ago Kaiser when it was on the West Coast did some lovely work also with Hawaii with the fact that adolescents were trying to do health screening questioning.

The best modality was the touch-screen questionnaire with interactive educational and cartoon kind of thumb things. They found sexual behavior and other habits.

They got much more honest answers than where they were asked by either a pencil-pushing type of questionnaire or by the actual examiner because particularly it's a generation that's been raised on video games. And they relate to computers in a far more friendly way, frankly, than paper questionnaires or people questioners.

And the technology is not that expensive. Think about efficiency of data capture. You don't have to have anybody enter the data either.

MODERATOR FLETCHER: Other questions or comments? Yes, sir?

DR. HADFIELD: Dr. Hadfield at AFIP.

It seems to me that you've in the very formative stages of this project and that based on information yesterday, your database would fit in very nicely with DMSS.

I would encourage you to get with those people and figure out how to make your database marry into that so that all of members' enrollment history can be collected and accessed through this system.

EXECUTIVE SECRETARY FOGELMAN: If I could maybe comment on that? There is a proposal now in DoD for a Service man's life cycle concept, if you will, which is basically going to be capturing data from different databases throughout a Service man's career.

If this proposal is accepted, we will be adding that to that Service man's life cycle concept, which will do exactly what you're saying, meaning that that data will be accessible as well as other data. The HEAR data, for example, will also be accessible.

DR. HADFIELD: I guess my concern was that we're starting, at least my perception is, we're getting a big scatter in the databases out there. And we need to have some way to access this centrally from all the points.

EXECUTIVE SECRETARY FOGELMAN: Right. And that's being addressed.

MODERATOR FLETCHER: Other comments, questions?

(No response.)

MODERATOR FLETCHER: This is the last but not least of our presentations. I really think is a thing we can respond to, all the committees. I'm real pleased.

(Applause.)

EXECUTIVE SECRETARY FOGELMAN: Okay. We'll be doing our breakouts. For those who want a box lunch, make sure you order it on the way to the subcommittees.

Again, the Environmental Health and the Health Maintenance committees will meet together in the room next door, where the coffee is. And the Infectious Disease Committee will meet here.

We will start the Executive Committee at 11:30 unless everybody finishes earlier and decides they want to start earlier. If you let me know, we can start earlier.

MODERATOR FLETCHER: The majority of my group, the big crowd, is in here.

EXECUTIVE SECRETARY FOGELMAN: So,

with that said, I think we are ready.

(Whereupon, the foregoing matter was concluded at 0851 a.m.)